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Claims:

1. Receiver for detecting information symbols transmitted according to an CDMA technique,
 according to which CDMA technique the information symbols are respectively spread
 10 with a common spreading code and scrambled with different scrambling codes, on the transmission side,
 the receiver comprising:
 - at least one despreading unit (44, 45) for despreading an input data bitstream respectively with said common spreading code, and
 15 - a set of k descrambling units (46, 47, 48, 49) per despreading unit (44, 45), k being an integer larger than 1, respectively k descrambling units (46, 47, 48, 49) being supplied with the output signal of one despreading unit (44, 45).
2. Receiver according to claim 1,
 20 characterized in that
 a plurality of despreading units (44, 45) is provided and input data are supplied to the despreading units (44, 45) by means of a delay line (42, 43).
3. Receiver according to ^{claim 1} ~~anyone of claims 1 or 2~~,
 25 characterized in that
 a channel estimator (15) is provided generating channel estimation values.
4. Receiver according to claim 3,
 characterized in that
 30 a correlator (16') is provided supplying correlation based data both to the input of the receiver (16) and of the channel estimator (15).

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5. Receiver according to ~~anyone of claims 3 or 4,~~ ^{claim 3}
characterized in that
it comprises multiplying circuits for multiplying data based on the output of a
descrambling unit (46, 47, 48, 49) with the channel estimation values supplied from the
5 channel estimator (15).

6. Receiver according to claim 5,
characterized in that
a plurality of RAKE combiner (52, 53) is provided being respectively supplied with the
10 output of n multiplying circuits (51) associated with different despreading units (44, 45)
but with descrambling units (46, 47, 48, 49) using the same descrambling code, wherein
n is the number of RAKE taps and larger than 1.

7. Receiver according to claim 6,
15 characterized in that
a number k of RAKE combiner is provided, k being the number of different scrambling
codes used per link and being larger than 1.

8. Mobile communications device,
20 characterized in that
it comprises a receiver according to ~~anyone of the preceding claims.~~ ^{claim 1}

9. Mobile communications device,
characterized in that
25 it is a mobile station for a CDMA transmission system.

10. Method for detecting information symbols transmitted according to an CDMA
technique,
according to which CDMA technique the information symbols are respectively spread
30 with a common spreading code and scrambled with different scrambling codes, on the
transmission side,
the method comprising the following steps:

- despreading (44, 45) an input data bitstream respectively with said common spreading code, and
- a set of k descrambling step (46, 47, 48, 49) per despreading step (44, 45), k being an integer larger than 1, respectively k descrambling steps (46, 47, 48, 49) being supplied with the output of one despreading step (44, 45).

11. Method according to claim 10,
characterized in that
a plurality of despreading steps (44, 45) is provided and input data are supplied to the
despreading steps (44, 45) after having been passed through a delay line (42, 43).

claim 10
12. Method according to ~~any one of claims 10 or 11,~~
characterized in that
a channel estimation values are generated.

13. Method according to claim 12,
characterized by
a correlation step (16') for supplying correlation based data both to the receiving step
(16) and to the channel estimation value generation step (15).

claim 12
14. Method according to ~~any one of claims 12 or 13,~~
characterized by
the step of multiplying data based on the output of a descrambling unit (46, 47, 48, 49)
with the channel estimation values supplied from the channel estimation value
generation step (15).

15. Method according to claim 14,
characterized by
a plurality of RAKE combining steps (52, 53) respectively supplied with the output of n
multiplying steps (51) associated with different despreading steps (44, 45) but with
descrambling steps (46, 47, 48, 49) using the same descrambling code, wherein n is the
number of RAKE taps and larger than 1.

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16. Method according to claim 15,
characterized in that

a number k of RAKE combining steps is provided, k being the number of different
5 scrambling codes used per link and being larger than 1.

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